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Figure 1

tgettalateaoagatgatatntaaagtatelagigatingigigiggeecagiateaagatieelaigaaatigiaaaacaateaetgageatetaagaacatate 13

Figure 2

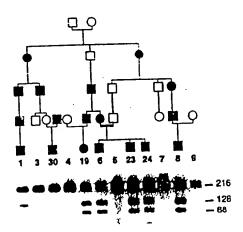
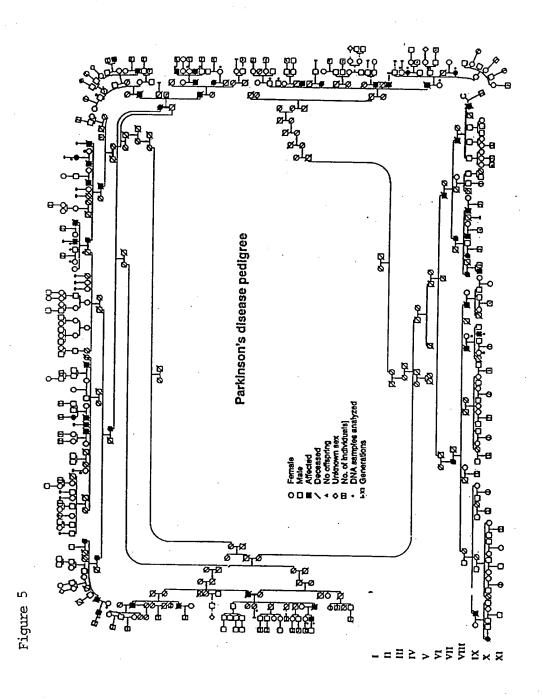


Figure 3

| | _ | _ | | |
|--------|--|---|--|---|
| | romo sapens Rattus norvegicus Bos taurus Serinus canaria Torpedo californica | Homo saplens Rattus norvegicus Bos laurus Serinus canaria Torpedo californica | Homo sapiens Rattus norvegicus Bos taurus Serinus canaria Torpedo californica | Homo saplens Rattus norvegicus Bos taurus Serinus canarla Torpedo californica |
| 08 | VAAAEKTKQGVAEAAGKTKSGVLY VAAAEKTKQGVAEAAGKTKEGVLY VAAAEKTKQGVTBAAEKTKEGVLY VAAAEKTKQGVABAAKTKEGVLY VAAAEKTKQGVABAAKTKEGVLY | 60 VAEKTKEQVTNVGGAVVTGVTAVAQKTVEGAGSIA VAEKTKEQVSHVGGAVTGVTAVAQKTVEGAGNIA VAEKTKEQASHLGGAVPSGAGNIA VAEKTKEQVSNVGGAVVTGVTAVAQKTVEGAGNIA VTEKTKEQANVVGGAVVAGVNTVASKTVEGVENVA | 110 EEGAPQEGILEDMPVDPDNEAYEMPS EEGYPQEGILEDMPVDPSSEAYEMPS LKPEEVAQEAREPLIEPLMEPEGESYEEQP EEGFLQEGMVNNTGAAVDPDNEAYEMPP IPAEQVAEGKQTTQEPLVBATEATE | |
| r | DVFMKGLSKAKEGV DVFMKGLSKAKEGV DVFMKGLSMAKEGV DVFMKGLSKAKEGV | 6 V A T T C C C C C C C C C C C C C C C C C | 100 I C C C K K D Q L G K - N A T G F V K K D Q M G K - G A T G L V K K E E F P T - D A T G L V K K D Q L A K Q N A S G V V K L D E H G R - E | 30 E E G Y Q D Y E P E A E E G Y Q D Y E P E A Q E E Y Q E Y E P E A E E E Y Q D Y E P E A E E E Y Q D Y E P E A |
| am6r 4 | | 04 4 4 4 5 | 8 8 8 6 | - |



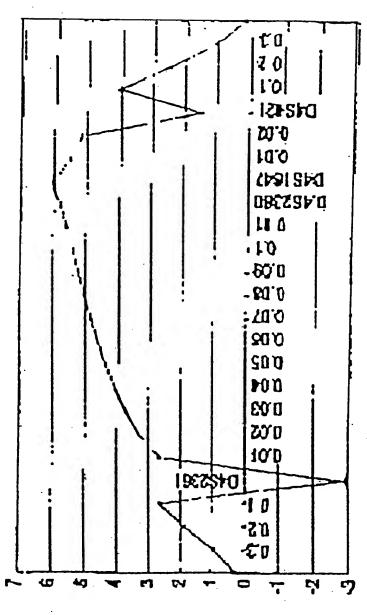


Figure 6

rop. gcore

Figure 7

| olono | 5' | 3' | , gene |
|-----------|-----------|---|----------|
| clone | T84229 | T88834 | alpha |
| 109979 | T83410 | 10004 | alpha |
| 111088 | T83410 | T81593 | alpha |
| 111090 | R11619 | (R19409) | alpha |
| 130048 | R31354 | R32856 | alpha |
| 135534 | R66663 | R67383 | alpha. |
| 141246 | | R77746 | alpha |
| 145594 | R78091 | H19291 | beta |
| 171906 | H19290 | H19474 | beta |
| 172284 | ·H19556 | H19685 | beta |
| 172749 | | | beta |
| 176546 | 1147500 | H41126 | alpha |
| 193174 | H47503 | H47504 | |
| 210768 | H66914 | H66869 | alpha |
| 213616 | H70324 | H70325 | alpha |
| 236027 | H62070 | APPOOR | alpha |
| 248153 | N53829 | N73325 | alpha |
| 24991 | (T80528) | R39000 | alpha |
| 26298 | R13508 | (R20629) | elpha . |
| 265817 | N28661 | N21457 | alpha |
| 266628 | | N22757 | alpha |
| 27342 | | R37173 | alpha |
| 280344 | (N50305) | N47094 | alpha |
| 290894 | | N72005 | alpha |
| 294142 | · | N68597 | alpha |
| 307787 | W21278 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | aipha |
| 340635 | W56712 | W56757 | alpha |
| 340683 | W55986 | W56276 | alpha |
| 346647 | W94390 | W74638 | alpha |
| 346796 | W79585 | W79784 | alpha |
| 359349 | AA010546 | AA010547 | alpha |
| 364632 | AA022809 | AA022690 | alpha |
| 39915 | | R50455 | beta |
| 40764 | R56327 | R56245 | alpha |
| 45086 | H08908 | H08824 | alpha |
| 46607 | H10267 | H10213 | alpha |
| 49811 | H29080 | H28976 | alpha |
| 50202 | | H17962 | beta |
| 50470 | | H16811 | beta |
| 66473 | R16018 | R16119 | alpha |
| 687794 | AA258686 | AA258608 | alpha |
| 69907 | T48654 | T48655 | alpha |
| 72391 | AA394097 | AA293803 | gamma |
| 739009 | AA421586 | | beta |
| 739014 | (AA42185) | AA421567 | beta |
| 771303 | | AA443638 | gamma |
| 2-4 | | L36675 | alpha |
| 2-5 | | L36874 | alpha |
| c-01f06 | | F01363 | alpha |
| o-1rb08 | F03254 | F06981 | alpha |
| c-2td12 | F08836 | F11169 | alpha |
| c-28f08 | F03751 | F07521 | alpha |
| cDNA | \$69965 | T | beta |
| EST01420 | M78265 | 1 | gamma |
| (HRBAA27) | | | <u> </u> |
| EST19193 | AA317129 | | beta |
| EST22040 | AA319774 | | elpha |
| 20122010 | | | |

Figure 7 cont.

| EST26845 | T28079 | | beta |
|------------|----------|---------|-------|
| EST31489 | AA328063 | | alpha |
| EST68G11 | W22518 | | gamma |
| F1-625D | R29481 | | alpha |
| GEN-129D09 | D81090 | | beta |
| hbc590 | T11070 | | alpha |
| HIBBA65 | T08213 | T08212 | alpha |
| | HR70E3R | HR70E3F | alpha |
| HSNACP0 | | U46896- | alpha |
| | | 46901 | |
| KK1311 | N83633 | | alpha |
| | | D318839 | alpha |
| | | L08850 | alpha |
| | T28735 | | alpha |
| | Z20502 | · | alpha |

Figure 8

| 10 | 20 | 30 | 40 | 50 | 60 | 70 |
|--|---|---|--|---|---|---|
| CCGCCGCAGCCGCA AGGGGCCCGGGAXA TCCGCGGCCCTGGA CAGAAGGGCXCCGC GGGCCAGTGCACC | AAAAXCGAGCAG GGTTCGCACTGG GGTCTCGGGAGT | GCCCCGGCC TGGCCCTTC GGAGTGGGGA | CCGCATCCG CCGCGTCCC TGAGATGGG TXTGCGTCC | GTTTGGAAGGC CAGGGTTTCAA GGGAAAGCGGC CGCGGGAGGGC | GGCTGCAAGT AGGGACGCTAG BAGGGGGCTCA BCTGGGGTGAG | GAXTX 140 - GGGTC 210 AGTGC 280 |
| 360 | 370 | 380 | 390 | 400 | 410 | 420 |
| TGTCCATGGCCAAG GAAGACCAAGGAGG TCCCCCTACAGTGT AGATGGGGCXAGGT AATGGGGACACGGG | GAGGGCGTTGTG GCGTCCTCTACG GGAGCTGGGGCC CAXCAXGGGTCA GCGGGCTGATG | DODODDADDE DODOTODDATE DODODDATE | GGAGAAAACC CXGGGGGCXG GGGGGGGGGGGGGGGATACCCAXCC | AAGCAGGGGG GGTTTCTGGG(TTCTGGGCAAI CATAGAAXCC | TCACCGAGGCG GCTGCAGGGCT GATAATATXAX TGGGTCTGTAT | GCGGA 420 GGGGG 490 (TCAGC 560 CCGGA 630 |
| 710 | 720 1111111111 | | سيتلنين | سينلسب | سيتنيي | ــــــــــــــــــــــــــــــــــــــ |
| AAAXCACAXCCT GTATGCCAAGTACT TAAGGGAAACTGGC AGCCAATTTCTTAC CCCAGGGCTGGGGA | CCTTTTTCTIA GGGTAAAATGT GCTTCCCATTGG | TCTTTTTA CATAACATC TAGXTAAAT AACTGAGTT CAGCGGGGC | CCATTATTAA CATTTCCTCA TTTAGGTTCA CCATCCGTGA AGGCAGAGGA | TAGTTATCTG TAGTAATGCTT GAAAGGCTTG AAACGGGGACA ACTTGACACAG | GTGTTGAACAC CCGCCCATTCT AATTGAATGTC ATAACAGCACC CACTGGCCCTC | TTTTCT 770 FACAGG 840 CAGTTC 910 CCGCTT 980 CAGCCA 1050 |
| 1060 | 1070 | 1080 | 1090 | 1100 | 1110 <u></u> | 1120 |
| ACATCCACTAGAGE GGCCCAGTGCAGTE CAGTGACGGGGCC AGTCCTTAAATGTE CITCAGGTACTAG | GGTGGGGTATC GATAAGACGGGG AGGATGCCCACT | GCATCAGGT GTTAACATG CTGTAATCA | GGGAGAGAAA GGGGTGCAGI CCATGCTGTG | CTGCAACCCTT STTGTAGGATX SCTGGAGTTTC CCCGAGAAGGT TAGGCGGATGA | GCAGACAGAGI TGGGGACCCAA TGTTCCCICA(GTGGTACAAGI TCTGGCCGGG | GTGTGG 1120 AGGAGG 1190 GCGCAG 1260 GTGTGG 1330 AACCAG 1400 |
| 1410 | 1420 | 1430 | 1440 | 1450 | 1460 | 1470 |
| AGGGCGGGGCAGG CTACAAGGCAGGG GGCTGAAAAAACC GCAGCCACAGGAC ACATGCAGGCAAA | GGGAGACTCCCA CATCGGTGTTTC AAGGAACAGGCC | AGGCTTCTG CCCCTGGCT CTCACATCTC | CCGGGAATGC CCCAAACCC GGAGGAGCT CTACTGATC | TCCGTGGGAG CTTCCTCAACC GTGTTCTCTGG TGAAGGTAAGG | GGCAGGCCCT CCCCTCCCTGC GGCAGGGAAC GATCCTTCTG | GGGATA 1470 TCCAGT 1540 ATCGCA 1610 ACCCGC 1680 |
| 1760 | 1770 | 1780 | 1790 | 1800 | 1810 | 1820 |
| CCCCCTAATCCT TCAGCTCAGAATC GCTGTCTGCGTGT TTGTTCATTCATT CCCTTTCAGCCX | GCCACCAGCTTO GCATCTGAATAA TATCCTGCTTGC TTCTTTTCATTC AGGGGAGCXTGA | GGAACACAA XGGCGTGCA CAGCGTGAC AACAAATAT GGGTTATTT | UDITTOCOS DADTOTOCOS TOATATGACT AXACOOTACOS DOCTOCOS ONIC | GCTCCCGTG GCTCCCGGTG TCTGGCCACG XCCAGCCCTG GATGCCCAGC | TEXEGECEGIG TEXEGRACECA TEXEGRACETE TEXEGRACECEGA TEXEGRACECEGA TEXEGRACECEGIGA TEXEGRACECE TEXEGRACECE TEXEGR | GACCTG 1890 CAATGA 1960 CCAGXT 2030 CACAAA 2100 |
| مسلينينين | | ANTATOCAA | ATCCTCCAAC | TREGAGGYT | GCCAGGCATTG | GGGGAG 2170 |
| GGATGAGGCATA CGGCGTGGAGAG CCTCCATCCCAC CCCTAGCCTTCC CTCACGAGTCCT | CCAGCTCCCCAA TTCCAAGGCACT | CCAAATAAA | TAACTGAAT TTACCACTG GAGGAAGTG | TAGAAATTATC TAGAAATTATC TAGGAATTTAG GCCCAGGAAGC | CTTGTTTTGCC GGGGCATCCTC TGCTGAAGAA | CAACCCA 2310 GCTGTC 2380 CCACTGA 2450 |
| 2460 | 2470 | 2480 | 2490 | 2500 | 2510 | .1 |
| TTGAGCCCCTGA GCCAGAGGCGTA CCAGAGCCAGGC CCTCGGAGCCTC CAGGGCCAGGG | AABADOBABBT, ABBACCCABBAB, ABATTCCTTABA TCTTAGTGTCCTGBG ABACCCABBABT, | TABABABAB BABCCCCAL CTCCTTCTC GTCCATCTG CTBGBABCC | DADGAGUAT DASGAGGAC DATATATATATATATATATATATATATATATATATATAT | AATTCTGTCCC AGATCTTCCTT CCGCCCGCGTC AGTGTTGCCTC | TGTCCCTGCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC | CCGCCCC 2590 GCAACCC 2660 GCATGGA 2730 GCGTCTG 2800 2870 |
| 2810 - 1 | 2820 بىلىيىلىي | 2830 بىلىيىلى | 040ء بىلىيىلى | سلسيس | سلسيلس | ـــــلىىبى |
| CGCG 2804 | | | • | | | |

Figure 9

| 10 | 20 | 30 | 40 | |
|--------------------------------------|-----------------------------|---|--------------------------------------|--|
| AGGGAGATCCAGCTCC TGCACACCCACCATGC | GTCCTGCC ATGTCTTC | AAGAAGGGCT1 CGGTGGAAAA(| CAACCC 40 CCTCCA 80 GACCAA 120 | |
| GCAGGGGGTGACGGAAGTCATGTATGTGGGAT | GCAGCTGA TACATTTT 220 | GAAGACCAAG(TTTTTTAAAG/ 230 | AAGGGG 160 AAAGAA 200 240 | |
| TAAATTAATTGTGAT | سيتليب | <u>1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1</u> | | |

Figure 10

| | | | | • |
|---------|------------------|----------|--------------------|-----------------|
| | 10 | 20 | 30 | 40 |
| | <u> بايسىلىر</u> | | linalan | |
| тттттх | AGGGGGGAA | AACAGGGA | XAAAAAXATA | AXGGGG 40 |
| | | | AAAAXGGTTX | |
| | | | GGGGXXAXTX | |
| | | | TTTTTXGTXA | |
| TXACCTC | XAGTGGGXC | GAGGAAGA | CCAAGGAAAX | GCCCAA 200 |
| | 210 | 220 | 230 | 240 |
| بيليين | بليسيلين | بببليين | 1 | |
| CXCGGTT | GAXCGAGGC | TGTGGTGA | ACAXCGTXCA | ACXCTG 240 |
| TGCCCXC | CAAXAXCGT | GGAGGXGG | CGGAGAACAT | CSCGGT 280 |
| | | | GGACTTGAGG | |
| | | | TCCMAAGARA | |
| AAGTGG | CAGAGGAGG | CCAGAGTO | GGGGARACTA | GAGGGC 400 |
| | 410 | 420 | 430 | 440 |
| حيلتنيت | | | سسلسيل | |
| TACAGG | CCAGCGTGG | ATGACCTG | AAGAGCGCTCC | TCTGCC 440 |
| | | | CAAGGAGTGCC | |
| | | | TCCTGCCCTCG | |
| | | | TGTGCTGCTGC | |
| CTCACT | CCCCTCCCT | CGGCCCCA | CCCACCCTCTG | GTCCTT 600 |
| | 610 | 620 | 630 | 640 |
| | لسيلين | | سبلببيي | |
| | | | | TAAATG 640 |
| ATTCCA | AATAAAACT | TGAGCCCA | CTCCAAAAAAA | AAAA 677 |

Figure 11 alpha-SYN exons 1-2

| 10 | 20 | 30 | 40 |
|--|------------|----------------------------|------------------------|
| AATTTCAGCGATGCGAG | GGCAAAGCG | CTCTCGGCG | GTGCG 40 |
| GTGTGAGCCACCTCCCG | GCGCTGCCT | GTCTCCTCC | AGCAG 80 |
| CTCCCCAAGGGATAGGC AGGCCCTCGNTCTCCCA | CONCRACTO | 1991 991 99 1998 978 97 | CCCTC 120 GTAGG 160 |
| GGGTGGTCCCCNGGAGG | ACCCAGAGO | BAAAGGCNGG | GACAA 200 |
| 210 | 220 | 230 | 240 |
| GAAGGGAGGGAAGGG | | | |
| AGCCCAACCGCTCCCGA | | | |
| CTAAACTTAACGTGAGO | | | |
| CCGCCTTGNNCCAGGCA | | | CTCAC 360 |
| CCCGCGCCCCCTGCCCC | CATCCCCAT | CCGAGATAGG | GACGA 400 |
| 410 | 420 | 430 | 440 |
| GGAGCACGCTGCAGGG | | | |
| GCGGGCAGAAGCGCTGA | | | |
| GCCGAGGAGAAGGAGA | AGGAGGAGG | ACTAGGAGGA | GGAGG 520 |
| ACGGCGACGACCAGAA | | | |
| ACCGAGCGCCGCGACG | | | GCTCA 600 |
| 610 | 620 | 630 | 640 |
| GCGCAGACCCCGGCCC | | | CTGGG 640 |
| CGCTCCCTCACGCCTT | | | |
| CCCTCGTGAGCGGAGA | | | |
| GGTTAGCGGGTTTGCC | | | |
| CCGGCTCACAGCGGCC | | | |
| 810 | 820 | 830 | 840 |
| GTGCCCCTCCGCCCTT | | | TCTTC 840 |
| TTTCCTATTAAATATT | | | |
| TTTTAAAAAAAAGAGAG | | | |
| GAGAAGCAGAGGGACT | | | |
| CGGGNGTCTTTGGAAA | | | |
| 1010 | 1020 | 1030 | 1040 |
| GAATGGTCGTGGGNAC | | | |
| GGACCGCTGGGCCAGG | | | |
| TTTGGGGAGCCTAAGG | | | |
| TAGGCTGCTTCTCCG | | | AGAGNT 1160 |
| INGGCIGCITCICCGC | JUNIOU III | , (| |

| 10 | 20 | 30 | 40 |
|-----------------|-------------|--|--------------|
| علىسلىساء | سليسييس | حبلبيين | <u> </u> |
| CTTAAAAGAGT | | | |
| .TTCAGTGTTTT | TTGTTTATTT | TOCCOGAAAGT | TCTCATT 80 |
| CAAAGTGTATT | TTATGTTTTCC | AGTGTGGTGTA | AAGAAAT 120 |
| TCATTAGCCAT | GGATGTATTCA | TGAAAGGACTT | TCAAAGG 160 |
| CCAAGGAGGGA | STTGTGGCTGC | TGCTGAGAAA | CCAAACA 200 |
| 210 | 220 | 230 | 240 |
| بليسينين | | حبيليسكن | <u> </u> |
| GGGTGTGGCAG | AAGCAGCAGGA | AAGACAAAAGA | AGGGTGTT 240 |
| CTCTATGTAGG | TAGGTAAACCC | CAAATGTCAGT | TTGGTGC 280 |
| TTGTTCATGAG | TGATGGGTTAG | GATAACAATAO | TCTAAAT 320 |
| GCTGGTAGTTC | TCTCTCTTGAT | TCATTTTTGCA | ATCATTGC 360 |
| TTGTCAAAAAG | | | |
| 410 | 420 | 430 | 440 |
| <u> سلسسلسل</u> | سليسيين | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | لىبىل |
| GGTGAATGTGA | ACGTGTGTATN | TGAGCTAATAC | STAAAAAT 440 |
| GCGACTGTTTG | | | |
| NTATGACTINT | TAAAATGAATG | TTTCTGTACTA | |
| CTATNTCAGAG | ACAGT 536 | | |

| 10 | 20 | 30 | 40 |
|-------------------|----------|--------------|--|
| | بتبيلين | | ــــــــــــــــــــــــــــــــــــــ |
| CTGCAGGTCAACGGATC | TGTCTCT | AGTGCTGTACT | TTTTAA 40 CACTGG 80 |
| AGCTTCTACAGTTCTGA | ALICAAA | ATTATOTICE C | TAAGTT 120 |
| GCCCCGGTGTTATCTCA | ATTCTILL | TICICUICIG | TAAGII 120 |
| GACATGTGATGTGGGA | ACAAAGGG | GATAAAGICA | TTATTT 160 |
| TGTGCTAAAATCGTAA | TTGGAGAG | GACCTCCIGI | TAGCTG 200 |
| 210 | 220 | 230 | 240 |
| | | <u> </u> | |
| GGCTTTCTTCTATNTA | TTGTGGTG | GILAGGAGII | CCTTCT 240 |
| TCTAGTTTTAGGATAT | TATATATA | ATTITIO | TTCCCT 280 |
| GAAGATATAATAATAT | ATATACTI | CTGAAGATIG | AGATTT 320 |
| TTAAATTAGTTGTATT | GAAAACTA | AGCTAATCAGC | AATTTA 360 |
| AGGCTAGCTTGAGACT | TATGTCT | TGAATTTGTTT | TTGTAG 400 |
| 410 | 420 | 430 | 440 |
| بالبيد البيداديد | | | |
| GCTCCAAAACCAAGGA | GGGAGTG | GTGCATGGTGT | GGCAAC 440 |
| ACCTAACCTCCATIGT | GCTTATA | TCAAAGATGAT | ATNIAA 480 |
| ACTATCTAGTGATTAG | TGTGGCC | CAGTATCAAGA | TTCCTA 520 |
| TCAAATTCTAAAACAA | LTCACTGA | GCATCTAAGAA | CATATO 560 |
| AGTCTTATTGAAACTG | BAATTETT | TATAAAGTATT | TTTAAA 600 |
| 610 | 620 | 630 | 640 |
| 010 | | 111111111 | |
| TAGGTAAATATTGAT | | | TECCAA 640 |
| | IMIMMIM | | I LOCKIN DIO |
| GAATAATGAG 650 | | | |

| . 10 | 20 | 30 | : 40 |
|----------------------|---------------------|--------------|-------------|
| <u> بىلىنىنى</u> | لتتبليتنك | | Liil. |
| ATATCTTAGCCAAG | GATTCAATGTTT | GGTTGAACC | ACACTC 40 |
| ACTTGACATCTTG | STEECTTITETT | TCTTCTGAC | CACTCA 80 |
| GTTATCTATGGCAT | TGTGTAGATACA | GGTGTATGG | AANCGA 120 |
| TGGCTAGTGGAAG" | IGGAATGATTTT | AAGTCACTG' | TTATTC 160 |
| TACCACCCTTTAA | CTGTTGTTGCT | CTTTATTTG | TACCAG 200 |
| 210 | 220 | 230 | 240 |
| <u></u> | Handani | l | |
| TGGCTGAGAAGAC | CAAAGAGCAAGT | GACAAATGT | TGGAGG 240 |
| AGCAGTGGTGACG | GGTGTGACAGCA | GTAGCCCAG. | AAGACA 280 |
| GTGGAGGGAGCAG | GGAGCATTGCAG | CAGCCACTG | GCTTTG 320 |
| TCAAAAAGGACCA | GTTGGGCAAGGT | ATGGCTGTG | TACGTT 360 |
| TTGTGTTACATTT | ATAAGCTGGTGA | GATTACGGT | TCATTT 400 |
| 410 | 420 | 430 | 440 |
| سىلىبىلىد | لىيىلىدىيل | سيطيب | |
| TCATGTGAAGCCT | GGAGGCAGGAGC | AAGATACTT. | ACTGTG 440 |
| GGGAACGGCTACC | | | GTGCTA 480 |
| CCTTTATATTGGT | CTTGCTTGTTT | 504 | • |

Figure 11 cont.

| 10 | 20 | 30 | 40 | |
|--|-------------------------------------|---|---|---|
| | | ليبيليين | | |
| AAAAGTTTACATA CAATGTTTCCCCG | | | | |
| | <u> </u> | LLAAGAILLU | I G G C C C C C C C C C C C C C C C C C | |
| T A T A T C | | LAAAACAIGU | 1 10 1011 102 | |
| TTTTTAAAAGTGA | AAAATGCTACT | ICAICAIGII | 51111 = 55 | |
| 210 | 220 | 230 | 240 | |
| ······································ | | ATCAACAAGG | AGCCCC 240 | |
| GTGCTTCTTACTT | TAAA IA I IAGA | CCCTCTCCAT | CCTGAC 280 | |
| ACAGGAAGGAATT AATGAGGCTTAT | CIGGAAGATAT | CACCTACCAC | TCCAAG 320 | |
| CTGAATCTTTCT | SAAA GUUSTUT | | GTCATT 360 | |
| GTCACATTTCTC | AU AU AU AU AU I A CTTC ATTACICI | TTAGTGAGAA | TCATTT 400 | |
| GTCACATTTCTC | | , | 440 | |
| 410 | 420 | 430 | | |
| <u></u> | <u></u> | ······································ | | _ |
| GCTCTCTACATG | CTCATTACGIG | GALAALIIGU | W. C. | • |
| GAATAGTTTTTA | CATTTTTAAAG | GGICCIIAAAA | GTAAAA 520 | |
| AGGAGGAGGAAG | ATGAAGAAGAG | GAAGAAAGGA | NTACTAC 560 | |
| GAAATCATATGT | AGTCCACATAG | _ | TREATTA 600 | |
| TTGACCCTTTAC | | TACTAACCCC | OUC | |
| 610 | 620 | 630 | 640 | |
| GAGAATATATTI | | | AAATTTT 640 | |
| GAGAATATATTI AGTGTAAAGTG | TTTACOCACTO | CTATCTCATT | GGCTGTC 680 | |
| CAGTGCTGATG | CTAATTCAAAC | TTATACTAAC | AGTGTGT 720 | |
| CAGIGUIGAIG | JO I AM I TOMANO | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| GCTGTCT 727 | | | | |

Figure 11 cont.

| | 10 | 20 | 30 | 40 |
|--|---|---|--|--|
| | | TT4004400 | | CTACG 40 |
| TTTTGATT | TTTCTAATA | ATATCTTTC | CTCCCACTT | TCTTG 80 |
| AACCTGAA | GCCTAAGAA | ATAILITIE | CTACAACTC | CTCAG 120 |
| AGATETG | TGACAGATG | ATOASATT. | GIALAAGIGI | |
| TTCCAATO | TGCCCAGTC | AIGALAIII | CICARAGIL | AGCAT 200 |
| AGTGTATO | CTCGAAGTCT | | | |
| 1 | 210 | 220 | 230 | 240 |
| CTCTACC | TGCCCCCACT | CACCATITO | CCTCCTTCC | |
| CIGIACC | TGAATACAT | CAGCATT | TOTOTTOTOT | GCTGT 280 |
| ACTGAAG | GTGGCTTCAA | TOTACCASO | STTAAAACAA | ATTAA 320 |
| AAACACC | TAAGTGACT | A C C A C T A T T | TOTANATOR | |
| AAACACC | TGTTGCTGT | CCACTAT | STIGITAGIC | ATTTG 400 |
| Attiti | | | | |
| | 410 | 420 | 430 | 440 |
| CTATCAT | ATATTATNA | SATITITAG | STGTCTTTA | ATGAT 440 |
| ACTETET | AAGAATAAT | CACGTATIG | TGAAATTTGT | TAATA 480 |
| TATATAA | TACTTAAAA | ATATRTRAG | CATGAAACTA | TGCAC 520 |
| TAATAT | ACTAAATAT | CAAATTTTA | CCATTTTGCG | ATGTG 560 |
| TITIATI | CACTTGTGT | TTOTATATA | A A T G G T G A G A | ATTAA 600 |
| | | | | |
| ITTIALL | | | and the second second | |
| | 610 | 620 | 630 | 640 |
| AATAAA | 610 CGTTATCTC | 620 ATTGCAAAA | 630 ATATTTTATT | 640 TTTTAT 640 |
| AATAAA | 610 CGTTATCTC | 620 ATTGCAAAA | 630 ATATTTTATT | 640 TTTTAT 640 |
| AATAAAA CCCATCT | 610 ACGTTATCTC | 620 ATTGCAAAA AATAAAAAT | 630 ATATTTTATT CATGCTTATA | 640 TTTTAT 640 AGCAA 680 |
| AATAAAA CCCATCT CATGAAT | 610 CGTTATCTC CACTTTAAT TAAGAACTG | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 |
| AATAAAA CCCATCT CATGAAT | 610 CGTTATCTC CACTTTAAT TAAGAACTG | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 |
| AATAAAA CCCATCT CATGAAT | 610 CGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA | 630 ATATTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT | 640 TITTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA | 610 CGTTATCTC CACTTTAAT TAAGAACTG AAATGGAACA 810 | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG ATTAACCCTA 820 | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT | 640 TTTTAT 640 AGCAA 680 TAAAGT 720 AGAGG 760 TTCCCT 800 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA | 610 CCGTTATCTC CCACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA GAAGCAA | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 AAGTGTGTT | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA GAAGCAA | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 AAGTGTGTT | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TAGAGAA TCCTTAA | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAGAGAGCCTA 820 AAGTGTGTTGATTAATTAT | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGCA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA GAAGCAA TCCTTAA GAAGACC | 610 CCGTTATCTC CACTTTAAT TAAGAACTG TAGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAAGAAGGAG TTAACCCTA 820 AAGTGTGTT AATTGTAGAG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGG | 640 TITTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA GAAGCAA TCCTTAA GAAGACC | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTG CCCAACTACT CCTGTCAATG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAAGAAGGAG ATAACCCTA 820 AAAGTGTGTTAACTGTGTTAACTTAACTAATTAT | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGG | 640 TITTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA GAAGCAA TCCTTAA GAAGACC | 610 CCGTTATCTC CCACTTTAAT TAAGAACTG TAGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTG CCCAACTACT CCTGTCAATG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAAGAAGGAG ATAACCCTA 820 AAAGTGTGTTAATTAATTAT ATTGTAGAG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGG TGGTCTATT ACGTATTTTGC | 640 TITTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TAGAGAA GAAGACA TCCTTAA GAAGACA TCCAATO | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTG CCCAACTACT CCTGTCAATG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAAGAAGGAG ATAACCCTA 820 AAAGTGTGTTAATTGTAGAG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGG TGGTCTATT ACGTATTTTGC | 640 TITTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 1040 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TCCTTAA GAAGACO TTCAATO TGTTGT | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTC CCCAACTACT CCTGTCAATG | 620 ATTGCAAAA AATAAAAAT ACACAAAGGAAGAAGGAG ATAACCCTA 820 AAAGTGTGTTA ATTGTAGAG ATTGCTTTA ATTGCTTTA ATTGCTTTA | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGCA TGAAAGTGCA TGAAAGTGTATT ACGTATTTGCAATTGTTATA | 640 TTTTAT 640 AAGCAA 680 TAAAGT 720 AAGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 1040 TTTGTC 1040 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TCCTTAA GAAGACA TCCTTAA GAAGACA TCCTTAA TCAATC | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTC CCCAACTACT CCTGTCAATG TTGATGTGTA 1010 GAGCCTTTTA | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 AAAGTGTGTTA ATTGCTTTA ATTGCTTTA ATTGCTTTA ATTGCTTTA ATTAACATA | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGCA TGAAAGTGGA TGGTCTATT ACGTATTTTGCAATTGTTATATATTGTTATT | 640 TTTTAT 640 AGCAA 680 TAAAGT 720 AGAGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 1040 TTTGTC 1040 TGATAT 1080 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TCCTTAA GAAGACA TCCTTAA GAAGACA TCCTTAA TGTTGT | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTC CCTGTCAATG TTGATGTGTA 1010 GAGCCTTTTA TAATTTTTA | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 AAGTGTGTT ATTGTAGAG ATTAATTAT ATTGTAGAG ATTAACATAT AGTTAACATAT AGTTAACATAT AGTTAAAAATG | 630 ATATTTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGCA TGAAAGTGGCA TGAAAGTGTATT ACGTATTTTGCAATTGTTATT CTATTTTGTCACAATAAATA | 640 TTTTAT 640 AGCAA 680 TAAAGT 720 AGAGGG 760 TTCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 1040 TTTGTC 1040 TGATAT 1080 ATATNC 1120 |
| AATAAAA CCCATCT CATGAAT TATTAAT TAGAGAA TCCTTAA GAAGACO TTCAATO TGTTGT TTAATT TCGAAA TGGTGT GACCAT | 610 CCGTTATCTC CACTTTAAT TAAGAACTG AGCCATTTG AAATGGAACA 810 ACACTGCCAG AGTGGCTGTC CCCAACTACT CCTGTCAATG TTGATGTGTA 1010 GAGCCTTTTA | 620 ATTGCAAAA AATAAAAAT ACACAAAGG AAGAAGGAG TTAACCCTA 820 AATTAATTAT ATTGTAGAG ATTGCTTTA 1020 ATTAACATAT AGTTAACATAT AGTTAACATAT AGTTAACATAT AGTTAAAAATAAAAAAAAAA | 630 ATATTTATT CATGCTTATA ACAAAAATAT GAATTTTAGA CACTCGGAAT 830 TTGGTATGCA TGAAAGTGGC TGAAAGTGGC TGAATTTTGC ACATTGTTATT CTATTTTGTC ACAATAAATA AGTGGGTTCC | 640 TITTAT 640 AGCAA 680 TAAAGT 720 AGAGG 760 TCCCT 800 840 ACTGGT 840 GGTGTT 880 TCTCCC 920 GGGAAC 960 ACATTT 1000 TO40 TTTGTC 1040 TGATAT 1080 ATATNC 1120 CGGGAA 1160 |

| 1210 1220 | 1230 | |
|--|---|--|
| GAGAGCCATAAGACACATTAGC GGCTCTGAGAGAATGTGGTTAA TCCTCACTTTTTTTTTT | ACATATTAGCACA CTTTGTTTAACT(ATCAGAAATTCT(CTTTTTTTTTTT | ATTCAA 1240 CAGCAT 1280 CTCTCT 1320 ITTTTT 1360 |
| 1410 1420 | 1430 | |
| GAGTCACCTTAAAGGGAGNATC AAAAATTTCATGGGCCTCCTTT ATGGAATTCTAGGGGTTTTTCC TCTCTTTTCNGGGGAGGATCCT | AATTCTCTAGGAI AAAATGTTGCCCA NTAGGGGGAAGG | CTGGAT 1440 AAATAT 1480 GTTITT 1520 |